Evaluating the Water-to-Market Farmer Training in Armenia: Challenges and Lessons Learned

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Water to Market - Objective

"Accelerate transition to more profitable agricultural production in the areas of irrigation rehabilitation…"

Water-to-Market Activity Objectives

- Introduce and encourage best practices in irrigated agriculture
- Foster adoption of improved water management techniques
- Shift to and/or expand cultivation of higher value crops
- Link producers to markets by strengthening post-harvest and processing enterprises
- Provide long-term, affordable credits to WtM beneficiaries.

Water to Market Activity

Objective: Accelerate transition to more profitable agricultural production in the areas of irrigation rehabilitation		
	Targets	Achievement
Impact indicator		
Increase in Real Income from Agriculture	5%	To be confirmed by Impact Evaluation
Component1: On-Farm Water Management		
Outcome indicator		
Adoption of improved farm water management	25,954 farmers	21,741 farmers as of Sept. 2010
Output indicator		
On-Farm Water Management Training	45,000 farmers	45,639 farmers
Component 2: High-Value Agriculture (HVA)		
Outcome indicator		
Transition to Higher Value Agriculture	18,858 farmers	16,624 farmers as of Sept. 2010
Output indicator		
Higher Value Agriculture Training	36,000 farmers	36,070 farmers
Component 3: Post-harvest Enterprises Technical Assistance		
Outcome indicator		
Improved marketing, processing and post-harvest handling techniques	125 enterprises/farmer groups	180 enterprises as of January 2011
Output indicator		
Assisted Processing enterprises and farmer groups	225	227
Component 4: Credit component		
Output indicator		
Bank Loans to project beneficiaries and related businesses	$8.5 million in loans	Over $12 million in loans

On-Farm Water Management

The key objective is a broad adoption of improved on-farm water management, by:

- **Increasing irrigation efficiency - better irrigation scheduling**
- **More economic use of available water – improved technology utilized**
- **Adoption of simple technical irrigation improvements**
- **Adoption of new irrigation methods and methodologies**
- **Establishing 120 sites with irrigation improvements related to the new techniques and technology, to serve as sites for field training by the TC.**
- **Training 45,000 farmers**

High Value Agriculture

The key objective is Encouraging Farmers to shift to High Value Agriculture, by:

- **Varying and diversifying cropping patterns and rotations**
- **Introducing dwarf fruit trees**
- **Introducing new plastic greenhouses and promoting local production of those**
- **Introducing and promoting production of non-traditional fruits and vegetables**
- **Training 36,000 farmers and establishing 100 demonstration sites**

Evaluation Design: Randomized Rollout

- Random assignment limited to communities with good irrigation water already
  - Community-level random assignment

- 277 communities (or clusters) randomly assigned to one of three groups:
  - Treatment (120): Eligible for training immediately (Compact Year 2)
  - Nonresearch (77): Eligible for training immediately, but training usually began in CY3 and CY4
  - Control (80): Eligible for training in final year of Compact (CY5)
- Not perfect: Cannot easily look at long-term impacts
- Stratified by Water User Association for equity and geo. balance
- Training attempted to saturate treatment villages
  - Want high training participation rates, but do not want to severely disrupt implementation

Evaluation Design (continued)

- Impacts estimated by comparing key outcomes for treatment and control communities as of 2010 agricultural season
  - Just before control communities become eligible
- Key measures from Farming Practices Survey of households include:
  - Crops cultivated
  - Production, sales, and costs
  - Other sources of household income
  - Participation in training
  - Agricultural practices
- Input from ACDI/VOCA and VISTAA on survey
  - Appropriate practices to include, and explanations for interviewers
  - Guidance on how certain crops were recorded, conversion factors (such as fruit trees per square meter), and prices from market research

Project Start Up

Pilot period initiated by ACDI/VOCA allowed time for the evaluator to:

- finalize the evaluation methodologies
- identify and implement the random assignment

….as well as for the implementer to:

- recruit the training team
- develop/test/modify the training Modules and techniques
- meet the WtM deliverables irrespective of the random assignment timing

Implementer-Evaluator Cooperation

- Early involvement of the Implementer in the impact evaluation aimed activities, such as:
  - Early discussions on implementation and evaluation issues
  - The development of the questionnaires
  - Briefing of the survey implementers on technologies introduced by WtM

- Open and immediate communication among the implementer/MCA/MPR/MCC to discuss the issues and find the most rational, country based and efficient solutions.

Random Assignment: Challenges and Solutions

- *Advantages:*
- A fixed list of Treatment and Control communities secured from outside interventions
- Allows elaborating a comparatively accurate implementation schedule

- *Challenges*:
- Disproportionate allocation of communities (growth/adoption/access to water etc.)

- Solutions:
- Individual approach to each community/situation

Limited Outreach: Challenges and Solutions

- *Challenges*:

- Lack of information among the target population
- Limited understanding of the purpose and importance of the training
- possible resistance on behalf of the local municipalities and/or farmers, due to the lack of awareness

- *Solutions:*

- Localized extensive outreach/advertisement
- Repetition of the Training recruitment cycle for each individual community/training
- Local coordinator/trainer, well known in their respective areas/communities

Targeted Saturation: Challenges and Solutions

- *Challenges:*

- Saturating treatment communities required extra effort, as some farmers were harder to recruit
- Challenging to achieve training targets

- *Solutions:*

- Survey firm shared list of farmers interviewed at baseline; they were actively recruited

Project Progress vs. Evaluation surveys

- *Challenges*:

Multiple evaluator surveys and interviews overlapping with each other and the training sessions:

- Making the farmers nervous and
- Interfering with the training sessions (as a result a lot of rescheduling/postponing of trainings)

- *Solutions*:

Coordinated actions with MCA/MPR

Ideas for Smooth, Early Collaboration

- *Challenge*:

Rigorous impact evaluation is a new concept to many implementers

- *Solution*:

If possible, provide more detail to implementers about what will be expected as part of impact evaluation

- For example, include preliminary evaluation plan as an annex to implementer request for proposals
- Specific examples of what would be required of implementers, such as (in Armenia) a list of all communities that would be eligible for random assignment
- Not necessarily final, but still a useful starting point for discussions

Formula for Successful Implementation

The culture of partnership and collaboration, based on mutual respect, trust, open communication and professionalism of all involved parties +

eagerness to create the best possible country-based and development/improvement oriented conditions =

the major key to the successful implementation of this quite complex project under rigorous evaluation.

Thank you!